

Relocating CBP Border Inspections: The Potential Impact on Tourism in the USVI

Executive Summary

The project described here estimates the impact on tourism in the USVI should CBP (Customs and Border Protection) cease pre-inspections in the USVI and instead conduct border inspections at CONUS (mainland) airports such as Miami and JFK. Inspecting these passengers at CONUS airports would mix these USVI passengers with the general inbound foreign inspections process. With this revised arrangement, some passengers would no longer be able to fly directly to their local (non-international) domestic airports. This could increase overall processing times (wait times) and travel times, with international gate fees for airlines, changes to flight schedules, inconvenience, and other travel arrangements. A calculation of the potential impact on the number of visitors and the USVI economy has been made on the basis of a survey of the travel and expenditure options of some USVI visitors and the available airline, airport, and Island statistics. A novel approach has been developed that takes account of the costs of travel in monetary, time, and stress as metrics of visitors' overall satisfaction with their vacations and the likelihood to revisit the USVI or recommend the destination to others. With this synthesis of motivators, the method bypasses the need for unreliable intermediate variables including tourism and air travel elasticity. The result, including alternative outcomes depending on passenger, airline, and possible Island responses are summarized below. The projected decline in air-arrival tourists due to the change is estimated at between 1.5% and 2.5% with a GDP decline of between .45% and .75%. These amounts are relatively small compared to seasonal and irregular fluctuations.

Summary of Impacts and Scenarios

	Travel	Destination	Arrivals Direct Flights	Arrivals Indirect Flights	Annual Arrivals Change	\$m USVI GDP Change	GDP % Change
SCENARIO 1	Inspection and Fee Changes Only	Without Additional Vacation %	-6,222	-11,906	-2.32%	\$ (29.543)	-0.71%
SCENARIO 2	Inspection and Fee Changes Only	Extra Vacation Time %	-4,382	-7,399	-1.51%	\$ (19.199)	-0.46%
SCENARIO 3	Airlines Maintain Revenue	Without Additional Vacation %	-6,656	-12,484	-2.45%	\$ (31.190)	-0.75%
SCENARIO 4	Airlines Maintain Revenue	Extra Vacation Time %	-4,816	-7,976	-1.64%	\$ (20.846)	-0.50%
BASE YEAR (2012)			201,352	580,300		\$ 4,143,000	

Summary of Findings	Travel	Destination	Direct	Indirect	Arrivals Change	USVI GDP Ch	GDP % Change
SCENARIO 1 (BASE)	Inspection and Fee	Without Addition	-5,139	-9,407	-1.86%	\$ (23.704)	-0.57%
SCENARIO 2	Inspection and Fee	Extra Vacation T	-3,619	-7,399	-1.41%	\$ (17.956)	-0.43%
SCENARIO 3	Airlines Maintain	Without Addition	-5,461	-9,863	-1.96%	\$ (24.972)	-0.60%
SCENARIO 4	Airlines Maintain	Extra Vacation T	-3,942	-8,025	-1.53%	\$ (19.501)	-0.47%
BASE YEAR (2012)			201,352	580,300		\$4,143,000	

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Calculations of Potential Impact on USVI Tourism

The steps in the analysis are summarized in Figure 1. The left and upper areas show the contextual tourism industry and destination characteristics that provide the context for visitor travel decisions (Boxes 1-4). The components of vacation and travel experiences are summarized within the center block (Boxes 4, 5, 7, and 8). Boxes 6, 9, and 10 cover the project survey and computation. The explanations of these steps are as follows:

Caribbean Island Destinations and USVI:

Boxes 1-4 deal with the overall characteristics of the tourism industry, its markets, processes, and destination, as these elements relate to the USVI. The data here are drawn from the USVI Departure Survey and other cited sources.

- 1) Island and Destination Characteristics
 - 2) Visitor Market Segments
 - 3) Industry Characteristics
 - 4) Time Scales in Tourism
- Like other Caribbean islands, the USVI has a turbulent history, including colonialization, a plantation economy, voluntary and enforced migration, poverty, and unresolved post-independence experiences. Often dominated by a single commodity-producing industry, islands are especially vulnerable to economic market cycles and the fortunes of their major industries. Even though, over the last half-century, tourism has offered another source of income for these islands, this industry too is subject to volatility, seasonality, contingencies, economic cycles, and crises including those in other industries or overseas.
 - Their complex histories have endowed Caribbean islands with distinctive cultures and environments that provide the basis of their tourism products and markets – beyond the sun, sand, and sea of their tropical location. Markets depend on proximity and history. Thus, the USVI draws most visitors from the Eastern continental USA (some 55% travel less than 2,000 miles, and 85% less than 3,000 miles). The tourism “product” reflects American tastes in accommodation, dining, and entertainment. For these visitors, the USVI (as a US territory) likely engenders a higher sense of familiarity and security, possibly to be impacted by the proposed change in CBP inspections. The large volume of cruise ship visitors magnifies the number of dining and other tourist activities in the USVI. As US citizens, a high proportion of USVI residents travel to and from the mainland, for business, shopping, education, and family.
 - Tourist destinations typically follow a destination “life cycle”, generally proceeding to ever-larger establishments, but also following the demographics, income, and fashions of their markets. In the Caribbean, the typical shift is from a “sun, sand, and sea” nature-based vacation towards a more constructed version. Since the USVI is a relatively “mature” destination, the majority of stay-over visitors stay in larger chain hotels (about 40%) with roughly equal shares (15-20%) in villas and

timeshare accommodation. The latter tend to be associated with longer visits (5, 6, and 7 nights respectively) and a higher return rate (2, 4, and 3 trips).

- Visitors to the USVI travel an average of about 2,000 miles, about 70% on indirect “hub and spoke” airline flights via Miami (at 1,000 miles) and New York and Charlotte (at 1,500 miles). This extends the average flight-time, the number of airport interactions, inspections, and potential delays, and hence the overall monetary and stress-related cost of travel to the USVI.
- A tourist’s appreciation of a destination arises from the intersection of many time-scales of change ranging from extended histories, life-path socialization, to momentary experiences. A favorable appreciation of the former may be overturned by a single unfortunate experience, or vice versa. Such events, whether to oneself or others, impact the desirability of enterprises and destinations - within islands (e.g. between hotel chains), within island clusters (e.g. the USVI), across the wider Caribbean, or more distant tropical destinations. Competitors take advantage of another’s adversity whilst the local accommodation, airlines, and airports reconfigure – adjusting schedules, prices, and services over the following months and years. Against this ever-evolving background, visitors’ opportunities and expectations tend to rise over time, whether for accommodation, dining, entertainment, airlines, or airports. For example, many airports are reimagining themselves as shopping malls to raise income and mitigate passenger stress and uncertainty from the inescapable variability in flight schedules and inspections.
- The relatively benign actuality of airport security inspections is compounded by wider fears of airline and destination safety and uncertainty associated with unfamiliar places and situations. Although destinations, airports, and airlines factor security issues into their own cost-benefit calculations, these do not well reflect the preferences and choice processes of tourists travelling to an overseas destination - at the very least a visitor’s choice might set the overall value of the vacation against the cost of travel monetary, time, and stress. These same variables are likely to compound and determine any decision to revisit the USVI or recommend the destination to others, whether directly or indirectly via word-of-mouth or social osmosis.
- From a policy perspective, the issue is whether the industry is robust to the magnitude of change expected. In the case of the USVI, although the St Thomas tourism sector and economy appears reasonably robust with an occupancy rate hovering around 60%. The same may not be true for St. Croix (with a much lower occupancy rate of only 40%), while the shut-down of the Hovensa refinery may create USVI-wide variabilities. Although tourism in the USVI has been comparatively stable in recent years, it is possible that, combined with the shut-down of the major industry, and financial difficulties in neighboring Puerto Rico, even a small change may trigger a more substantial loss of visitors. This goes beyond the remit of the present project.

Airline, Airport, and Destination Data

Boxes 2 and 3 summarize the data available from industry and academic sources. Specific data on USVI arrivals and expenditures were obtained from the USVI BER/BEA and the USVI Port Authority. Other

USVI and Caribbean-comparative data on tourism accounts, and GDP contributions and trends are obtained from the WTTC. Information on airlines, airfares, and schedules, including flight frequency and capacity were obtained from airline and USVI BEA websites. International and Regional airport landing fees, delays and scheduling buffers were obtained from airline and social media sources. Information on TSA and CBP security delays are from DHS and other tourism and travel publications and web sites. In most cases the data are incomplete and/or out-of-date, so some data must be substituted or scaled across items. Where possible these values were cross-checked with data collected in the USVI Departure Survey.

Travel and Destination Experience, Expectations, and Choice

Boxes 5-8 summarize the visitor choice, experience, and evaluation cycle. In any year, about half of all USVI stay-over tourists have visited the destination previously, although on average the return rate on successive years is only 5%. Thus, for new visitors, the decision is made on the basis of reputation through industry and destination marketing, but most convincingly by word of mouth, and increasingly via social media. The literature shows that unfulfilled expectations are damaging to a destination's reputation. Ultimately, reputation depends on the experiences and evaluations of previous visits, and the choice of travel matched to the prevailing visitor-specific options. These include hotel and airline pricing strategies, discounts, packages, preferred travel, and so on, all of which vary by seasonal and other less-predictable variability, including ongoing weather or security-related events.

Methodology for Impact Study

For reasons discussed elsewhere (in this report) analysis of the monetary, temporal, and security aspects of air travel, addressing impact variously in terms of price elasticity, opportunity cost, or security components, but do not include the prime purpose - to enjoy a vacation. Similarly, destination-related visitor-demand and security studies take little account of the travel component of a vacation. Both fields tend to be Balkanized institutionally and academically, and while they share key-words, such as "safety", "security", and "risk", these are interpreted and measured differently. Moreover, estimated price-elasticity for both travel and tourism are so variable as to give little guidance as to destination impacts, while the opportunity-cost of delay is immaterial for an overseas destination.

Recognizing the need to take a synthetic account of price, time, and security in evaluating a destination choice, does not by itself resolve the problem of how to combine them or use these to predict the outcome of new travel configurations. A recent security-related tourism study has advocated analysis of the chain of events and decisions confronted by tourists. This is similar to the "ethnographic approach" suggested for airport design studies. While neither suggestion is applied, formally they parallel the widely-used airline check-in and airplane boarding step-by-step simulations. This approach, in a simplified form, is adopted for the impact study here.

For this, the travel and destination experience is taken to comprise three segments: an outward journey from home to destination; the stay at the destination; and the return journey. Each segment involves issues of time, monetary expenditure, and stress. These are specified for each component of travel: travel to airport; check-in and inspections at the airport, flights and transfers (for indirect flights), and arrival procedures and transport. This provides the total monetary, time, and stress costs of travel to and from the destination. It also allows for specified changes to the travel itinerary, not least the proposed shift of CPB inspections from the USVI to CONUS international airports.

In the scenarios presented later, it is assumed that the current domestic flights between the mainland and the USVI are all re-designated as international flights with the revised fees and wait-times. In contrast to the travel segments of the vacation, experiences at the destination – good or bad - are bundled into a uniform package such that its value per day is constant and depends on total expenditure on the vacation. Any subsequent decision by visitors to return to the USVI or to recommend the Islands to others depends on the net value of their vacation, including travel. One merit of this approach is that it bypasses the need to employ travel and destination price elasticity estimates since these are widely shown to be highly imprecise and erratic. It also recasts the visitor preference function around the propensity to return or recommend the USVI as a vacation rather than simply satisfaction with the destination.

USVI Visitor Departure Survey

The departure survey (Box 9) is designed to elucidate how these various components are weighted in visitors' evaluations and decisions (or, at least, their responses to questions about their satisfaction and intentions). In this, there is a distinction between stated intention and actual behavior, since at the individual level the literature shows that these are not well-correlated. Nonetheless, since the mechanism for dissemination of information and marketing of destinations responds to these visitor appraisals, these should be meaningful at a more aggregate level. Moreover, the pattern is found to be similar across visitor segments, and correlates well with other responses such as overall satisfaction, and relevant importance of travel and destination attributes.

The survey also clarifies which visitor and travel characteristics are relevant to the impact analysis. The key relevant visitor characteristic is the distinction between travelers on direct flights versus indirect flights (which are longer and involve transfers and additional security inspections). Equally relevant, in terms of future travel is the distinction between first-time visitors and returnees. The former rely exclusively on indirect knowledge of the Islands; returnees – including first-time visitors from the current year - have their own first-hand experience. While other above-mentioned visitor-specific distinctions are important for hotel operators, destination managers, and airlines, empirically they are found to be less relevant to the policy issue at hand since the main patterns obtained from the survey are shared across visitor categories.

As explained elsewhere, the survey was based on a relatively small sample of about 1000 visitors over weekends in a transition month (between low and high season). Whilst the visitors' responses provide the weighting that visitors attribute to the elements of choice and the proportions of different types of visitor, the number of visitors, expenditures, airfares, wait-times, and so on are, as far as the data allow, matched to the recorded statistics of the various USVI, national and international sources. It should be noted here that all such statistics are based on samples.

Return and Recommend Equations

The formula employed to estimate (reveal) the importance of vacation, expenditure, time, and stress (Box 10) is

Overall Satisfaction with Destination, O= Function (Destination Experience, D, Vacation Expenditure E, Total Travel and Wait Times T, and Travel Stress, S).

The dependent "Satisfaction" variable may be expressed level of enjoyment with the vacation as a whole, the likelihood of making a return visit, or the likelihood of recommending the destination to others.

The function may be linear

$$O = \lambda + \alpha \times D + \beta \times E + \gamma \times W + \delta \times S + \epsilon$$

or non-linear

$$O = \lambda D^\alpha E^\beta W^\gamma S^\delta + \epsilon$$

In each case, α .., λ are estimated model parameters with ϵ as the error on individual predictions.

With small changes, the linear model becomes

$$\begin{aligned} O + \Delta O &= \lambda + \alpha \times (D + \Delta D) + \beta \times (E + \Delta E) + \gamma \times (W + \Delta W) + \delta \times (S + \Delta S) + \epsilon \\ &= O + \alpha \times \Delta D + \beta \times \Delta E + \gamma \times \Delta W + \delta \times \Delta S \end{aligned}$$

Here ΔE , ΔW , and ΔS are the measurable increments (or proxies) for the expenditure, wait time, and stress expressed by travelers. ΔE is measured as the change in airfare (from airport fees and taxes) and ΔW is the net change in wait-time at airports. ΔS , is the change in stress. This is assumed to depend on travelers' uncertainty and lack of ability to control events, and is measured via a proxy, the change in variability of wait times at airports. ΔD is the increased "value" or utility of the vacation which depends on changes in the time spent at the vacation, ΔT . The unit value of time spent at the destination is E/T , i.e. total expenditure on the vacation (inclusive of destination expenditure, travel, and airport fees) divided by the time spent at the destination. If, additional time, Δt , is spent at the destination, with no change in total cost, then the value of the vacation increases proportionately.

In the survey these items are measured on a 1-5 scale and the changes as fractional shifts in the cost metric. The endpoints of this scale, very dissatisfied and very satisfied, are socially determined by current expectations for each component of the vacation, as indeed they are for the vacation

experience as a whole. These might cover a range from “unfulfilled” to “exceeded”. In tangible terms (for example, time of travel, cost of vacation), in any given moment, these expectations represents a certain number of hours or dollars. Expectations evolve over time both for individual travelers and collectively across the various segments of the tourist population. If the tangible measures relatively improve (e.g. become cheaper, faster, and/or less insecure) in competing destinations, visitor approval of the surveyed destination will tend to decline. Recognizing the issues involved in equating the various tangible metrics and less tangible visitor evaluations, the assumption here is that the net shift in satisfaction may be determined from the weighted fractional shift in the tangible attributes of expenditure, time, and wait-variability. This implies that, as the physical and attitudinal system evolves, the typical tangible range of an attribute follows the attitudinal range, and vice versa. Since, change in satisfaction translates in a change in the value of the vacation, or a change in propensity to revisit or recommend the destination, the model can be applied directly to the latter variables. These then are assumed to pro rata determine the approximate change in the number of arrivals.

The approach recasts the visitor preference function in terms of their stated likelihood of returning to the USVI or recommending the Islands as a vacation destination. As with the analysis of visitor satisfaction with their vacation, it is assumed that for small perturbations there is a linear relationship between changes in satisfaction and potential changes on behavior. The questionnaire scale range from “Definitely Not” to “Very Likely” is taken to represent a 0% to 100% probability of returning to, or recommending, the USVI. (On this basis, the average expectation of returning is 85%, compared to the 41% of returnees in the interviewed sample. This suggests that the expectations are roughly halved over the over the following years (due to changed circumstances and opportunities), but nonetheless leaving a healthy actual return rate. (The returnees sampled in the survey had visited the USVI an average of 6.3 times prior to their current trip). In contrast, visitors’ intentions to recommend the USVI to others are less likely to decay, and the 90% expectation of visitors recommending the destination to others, either directly, or indirectly via marketing surveys, social media, and soon. Together these responses offer a reasonable basis for considering changes in visitation due to revised CBP arrangements, or other changes.

Here, again, it is assumed that for small perturbations there is a linear relationship between changes in satisfaction and potential changes on behavior. Estimation of this model provides distinctive parameters for the selected visitor characteristics and good correspondence between parameters, for example, between those for enjoyment with the vacation, and propensity to return or recommend. The estimated parameters for the return and recommend preference equations are given in Table 1. The estimated parameters as different, but similar in terms of their relative values, depending on whether overall enjoyment, or likelihood of return or recommend, is taken as the dependent variable, or whether the analysis is for different visitor categories and samples. The regression findings also comport with visitors’ responses as to their relative importance. The constant term in these

regressions represents the contribution of all other components of the vacation (notably the experience at the destination) that are not affected by changes in expense, time, or stress.

Segmented Journey Time and Buffers

The empirical information for the step-by-step description of the travel alternatives is assembled from published data and the Departure Survey, as far as possible reconciled across sources (Box 11). This is detailed in Table 2 and summarized in Table 3. Where information is not available, plausible estimates are adopted (Box 10). This applies, for example, to travel times between airports and residence or hotels, although the total compounded return travel time comports reasonably with the findings from the survey. For example, the survey-based average homeward travel time for visitors on direct and indirect flights are 5.9 hours and 9.9 hours journey, compared to 6.5 and 11.1 hours for corresponding travel segments.

The greater mismatch arises with between airlines' variously published requirements for passengers to arrive at airports in advance of take-off, and the time survey respondents expected wait at airports and their overall return-journey time. Transfer-times from the survey average 2.6 hours compared to 1.1 hours as estimated from TSA and CBP wait-times. Here the mismatch may be due to coordination complications in hub-and-spoke schedules. On the whole the available data on wait-times and their variability relate only to departures from CONUS airports, including TSA inspection time and variability, airline schedules and buffers. Even less data are available for CBP inspections and arrangements in the USVI. The tangible metric for stress, in the context of travel with no major unexpected trauma, is the uncertainty attached to each element of the journey. As far as possible, values are extracted or imputed from TSA, airline, and web-based sources. Various sensitivity tests have been conducted around the data employed. These show modest variation in the final results. However, it is important to recognize that all estimates depend on the interpretation of key variables, underlying model assumptions such as the additivity of the preference function components, as well as survey sampling and ambiguities in the available data.

Impact Calculations and Scenarios

The principle calculation accounts for the transfer of current CDP inspections from the USVI to the CONUS international airports serving the Islands (Box 12). The primary assumption here is that, as a consequence of this change, all flights to the mainland currently treated as domestic flights would be reincarnated as international flights, with longer transfer and wait-times and higher gate and landing fees. A further assumption is that visitors on direct and indirect flights would respond as estimated from the survey responses. While there is no guarantee of this, the assumption is plausible. Table 4 shows the potential changes in visitors' potential to revisit or recommend the USVI as a tourist destination.

These assumptions underpin the calculation of the main scenario shown in Table 5 (Scenario 1). This shows that the number of passengers on direct and indirect flights would decline by 3.1% and 2.1%

respectively with a weighted average of 3.3%. If this resulted in a pro-rata loss of tourism spending on the islands, the loss to USVI GDP would be \$29.5 million, or 0.71% of GDP (based on 2012 data).

As explained earlier, the various components of the tourism system respond to each other's changes. For example, airlines might reschedule flights to accommodate longer transfer times for passengers on indirect flights. The USVI Port Authority might take advantage of the CDP departure to facilitate a speedier and less stressful airport configuration, and so on. It is certainly possible that within a relatively short (say, one or two year) timeframe that actors will have responded so as to mitigate some of their potential losses. Here it should be recognized that this mutual adjustment to the proposed changes is likely to take several years, and likely be swamped by other ongoing changes.

As an illustration of possible responses, it is plausible that, since this change results in lower traffic, airlines would respond by reducing services to the USVI, or increase fares in order to preserve revenues. This added fare cost will reduce the number of arrivals somewhat further (Scenario 2).

Similarly, since the shift of CBP inspections from the USVI will reduce the wait-time for passengers leaving the island airports, visitors might extend their vacation time. This does not raise their total cost in terms of expenditure of money, time, or stress so that the net value of their vacation is increased, making the destination appear somewhat more desirable (Scenario 3). This response would partially offset the change in airfares, resulting in an overall decline in visitors of 1.6% and a decline in GDP of 0.5% (Scenario 4). Table 5 compares the calculated outcomes of these alternative possibilities.

The downstream impacts of the loss of visitors on the USVI using aggregate multipliers calculated from WTTC satellite accounts (that are, in turn, in turn based on USVI BEA statistics). Compared to other similar-sized tourist destinations in the Caribbean, the income multipliers appear exceptionally low, possibly because of the close association of the USVI and the mainland with a consequent high income leakage from the Islands. A related factor is that spending by USVI residents travelling overseas (mainly in Puerto Rico and the mainland) is approximately the same as inbound tourism to the USVI. It is likely that this spending too will be affected by the proposed change in CBP inspections, possibly substantially offsetting the loss from inbound visitors.

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Figure 1 Framework for Visitor Choice Analysis and Calculation of Tourism Impacts

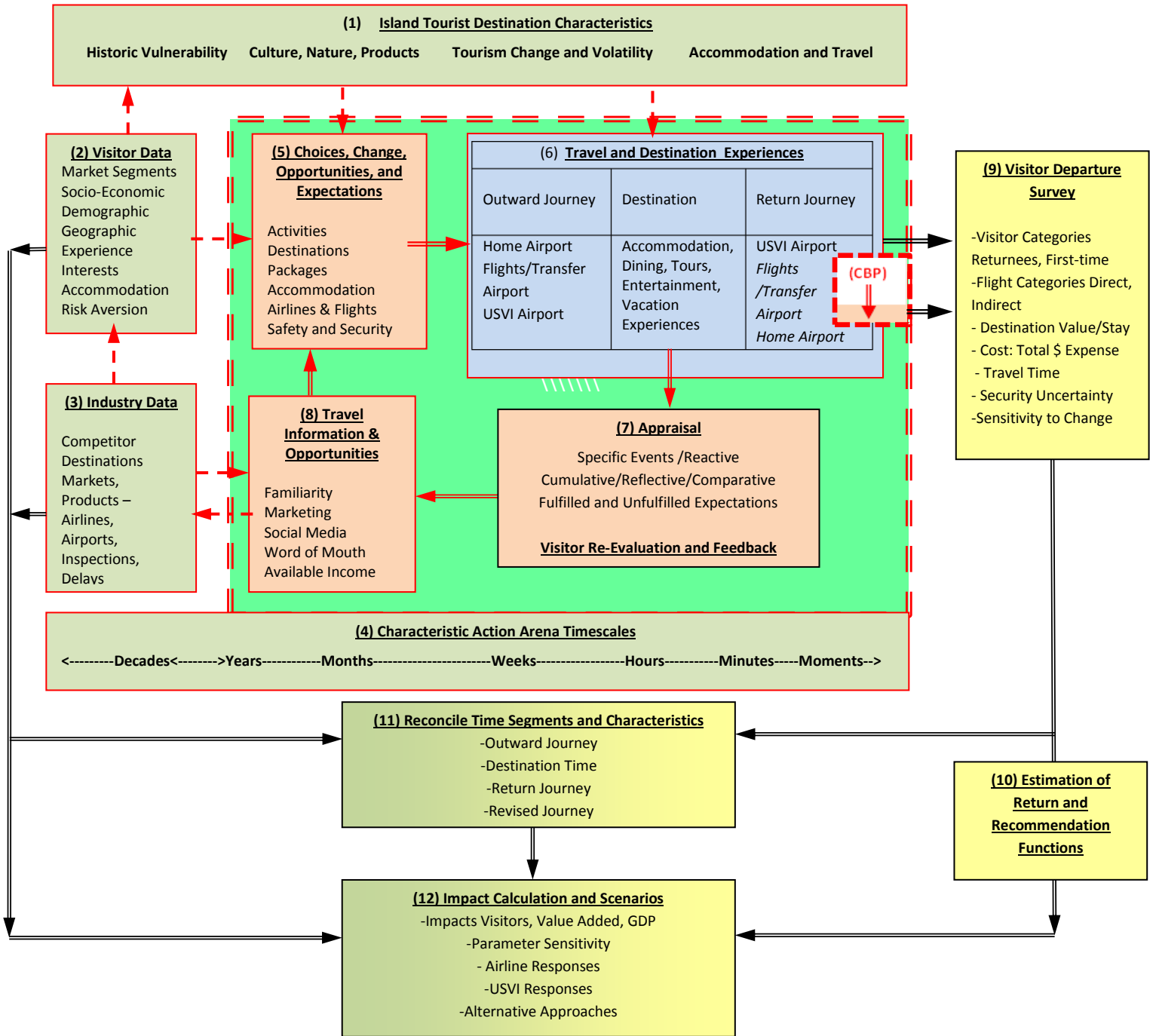


Table 1 Estimated Parameters for Selected Visitor Survey Categories

REVISIT					
COEFFICIENTS	DIRECT	INDIRECT	ALL REVISIT	Standard Error	t Stat
Intercept	3.55	2.77	2.89	0.27	10.64
Cost	-0.27	-0.11	-0.14	0.06	-2.59
Safety	-0.23	-0.26	-0.24	0.06	-4.06
Travel	0.00	0.10	0.07	0.05	1.60
AVERAGE					
Cost	3.98	3.88	3.95		
Safety	4.28	4.11	4.23		
Travel	3.77	4.09	3.86		
RECOMMEND					
COEFFICIENTS	DIRECT	INDIRECT RECOMMEND	ALL RECOMMEND	Standard Error	t Stat
Intercept	2.96	2.89	2.81	0.24	11.87
Cost	-0.22	-0.19	-0.20	0.05	-4.03
Safety	-0.23	-0.23	-0.21	0.05	-4.11
Travel	0.07	0.07	0.07	0.04	1.79
AVERAGE					
Cost	3.98	3.88	3.95		
Safety	4.28	4.11	4.23		
Travel	3.77	4.09	3.86		

Table 2 Vacation and Travel Segments including Assessed Uncertainty (minutes)

	Direct Flight		Indirect Flight		Stress and Uncertainty
Travel Segment	Current	Revised	Current	Revised	Buffer/Total Wait
Home-Airport	60	60	60	60	30%
Airline Check-in			15	15	30%
Local TSA			7	7	30%
Boarding			20	20	30%
Flight with Buffer			203	203	9%
Disembarking			10	10	30%
Transfer/Check-in	15	15	15	15	30%
CBP		18.3		18.3	30%
TSA	6	6		6	30%
Boarding	20	20	20	20	30%
Flight to USVI (with Buffer)	256	256	256	256	9%
USVI Disembarking	10	10	10	10	30%
USVI CBP		12		12	30%
Baggage	15	15	15	15	30%
Customs					
Arrive Accommodation	30	30	30	30	20%
<u>Vacation Time</u>					
Accommodation-Airport	30	30	30	30	30%
Airline Check-in	15	15	15	15	30%
USVI CBP	11.8		11.8		30%
Local TSA	3.9	3.9	3.9	3.9	30%
Boarding	20	20	20	20	30%
Flight	256	256	256	256	9%
Disembarking	10	10	10	10	30%
CONUS CBP		18		18	30%
Baggage	15	15	15	15	30%
Customs		18		18	30%
Transfer			15	15	30%
CONUS TSA			6	6	30%
Boarding			20	20	30%
Flight			203	203	9%
Disembarking			15	15	30%
Baggage			15	15	30%
Arrive Home	30	30	30	30	20%

Table 3 Estimates of Potential Changes in Travel Arrangement

	Direct			Indirect		
	Current	Revised	Change	Current	Revised	Change
Total Vacation Cost \$	\$1,258	\$1,275	\$17	\$1,419	\$1,436	\$17
Change %			1.4%			1.2%
Total Journey hrs. (Segmented)	13.4	14.3	0.9	22.1	23.1	1.0
Change %			6.8%			4.6%
Journey Uncertainty hrs.	2.1	2.4	0.3	3.3	3.6	0.3
Change %			12.9%			9.2%
USVI Check-in hrs.	0.85	0.65	-0.20	0.85	0.65	-0.20
Present Vacation Time hrs.	70.58	70.78	0.20	71.71	71.91	0.20
Additional Vacation Value			0.3%			0.3%

Table 4 Changes in Propensity for Visitors to Revisit or Recommend USVI Destination

<u>RECOMMEND</u>	DIRECT			INDIRECT		
	Metric	Weight	Change %	Metric	Weight	Change %
Additional Vacation Value	0.3%	3.0	0.8%	0.3%	2.9	0.8%
Total Vacation Cost \$	1.4%	-0.2	-0.3%	1.2%	-0.2	-0.2%
Journey Uncertainty hrs.	12.9%	-0.2	-3.0%	9.2%	-0.2	-2.1%
Total Journey hrs. (Segmented)	6.8%	0.1	0.5%	4.6%	0.1	0.3%
Extra Vacation Time %			-1.96%			-1.23%
Without Additional Vacation Time			-2.79%			-2.03%

<u>REVISIT</u>	DIRECT			INDIRECT		
	Metric	Weight	Change %	Metric	Weight	Change %
Additional Vacation Value	0.3%	3.5	1.0%	0.3%	2.8	0.8%
Total Vacation Cost \$	1.4%	-0.3	-0.4%	1.2%	-0.1	-0.1%
Journey Uncertainty hrs.	12.9%	-0.2	-3.0%	9.2%	-0.3	-2.4%
Total Journey hrs. (Segmented)	6.8%	0.0	0.0%	4.6%	0.1	0.5%
Extra Vacation Time %			-2.36%			-1.32%
Without Additional Vacation %			-3.35%			-2.08%

Table 5 Possible Impact of CBP Inspection Relocation on USVI Tourism and GDP

SCENARIO 1	Inspection and Fee Changes Only - Without Additional Vacation %				
	USVI	Direct	USVI	Indirect	Total
Landing Fee Increase		\$17		\$17	
Arrivals		201,352		580,300	781,652
Share %		26%		74%	
Returnees %	54%	-3.35%	49%	-2.08%	
New Visitors %	46%	-2.79%	51%	-2.03%	
All %		-3.09%		-2.05%	-2.32%
Arrivals Change		(6,222)		(11,906)	(18,129)
USVI GDP Change %		-0.95%		-0.63%	-0.71%
\$m USVI GDP Change		\$(39.363)		\$(26.135)	\$(29.543)

SCENARIO 2	Inspection and Fee Changes Only - Extra Vacation Time %				
	USVI	Direct	USVI	Indirect	Total
Arrivals		201,352		580,300	781,652
Share %		26%		74%	
Returnees %	54%	-2.36%	49%	-1.32%	
New Visitors %	46%	-1.96%	51%	-1.23%	
All %		-2.18%		-1.28%	-1.51%
Arrivals Change		(4,382)		(7,399)	(11,781)
USVI GDP Change %		-0.67%		-0.39%	-0.46%
\$m USVI GDP Change		\$(27.722)		\$(16.241)	\$(19.199)

SCENARIO 3	Airlines Maintain Revenue - Without Additional Vacation Time %				
	USVI	Direct	USVI	Indirect	Total
Fare Increase %		2%		1%	
Arrivals		201,352		580,300	781,652
Share %		26%		74%	
Returnees %	54%	-3.59%	49%	-2.15%	
New Visitors %	46%	-2.98%	51%	-2.15%	
All %		-3.31%		-2.15%	-2.45%
Arrivals Change		(6,656)		(12,484)	(19,139)
USVI GDP Change %		-1.02%		-0.66%	-0.75%
\$m GDP Change		\$(42.105)		\$(27.403)	\$(31.190)

SCENARIO 4	Airlines Maintain Revenue -Extra Vacation Time %				
	USVI	Direct	USVI	Indirect	Total
Arrivals		201,352		580,300	781,652
Share %		26%		74%	
Returnees %	54%	-2.60%	49%	-1.39%	
New Visitors %	46%	-2.15%	51%	-1.36%	
All %		-2.39%		-1.37%	-1.64%
Arrivals Change		(4,816)		(7,976)	(12,792)
USVI GDP Change %		-0.74%		-0.42%	-0.50%
\$m GDP Change		\$(30.464)		\$(17.509)	\$(20.846)